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Study of Fungemia in Pediatric Intensive Care Unit and Associated Risk Factors

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Abstract

Background and Aims: Invasive fungal diseases cause significant morbidity and mortality in immunosuppressed patients. Patients in intensive care units require invasive procedures, vital supports and antibiotic use; predisposing them to fungal infections. There is a paucity of such data outside the neonatal intensive care Unit. Thus, we planned to study the prevalence of fungemia in the pediatric intensive care unit (PICU), associated risk factors and outcomes.

Methods: A prospective analysis of 48 children admitted to PICU over six months and fulfilling the inclusion criteria was done. Blood samples of patients with duration of stay of 7 or more days in PICU were sent for fungal cultures on day 7. Categorical data was analyzed by Chi square test at 5% significance.

Results: Blood fungal cultures were positive in 3 patients (6.25%). The cultures grew *candida parapsilosis* (75%) and *candida albicans* (25%). Fungemia was not observed to cause significant mortality in the admitted patients but duration of PICU stay in these patients was significantly longer (*p* = 0.024). Other clinico-demographic and risk factors were not significant.

Conclusions: Patients in our PICU, mainly admitted for medical indications, did not include many post-operative patients, malignancies, patients on immunosuppressant or with neutropenia; factors which have been associated with increased fungal sepsis. Thus, our PICU shows a relatively low incidence of blood fungemia.